



## HOW-TO BOOKLET #3135

# ROSES



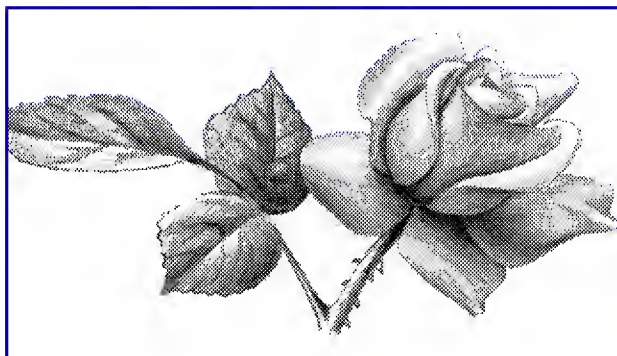
### TOOL & MATERIAL CHECKLIST

- |   |   |                                     |
|---|---|-------------------------------------|
| <input type="checkbox"/> Spade                      | <input type="checkbox"/> Garden Fork    | <input type="checkbox"/> Fertilizer |
| <input type="checkbox"/> Garden Hose                | <input type="checkbox"/> Pruning Shears | <input type="checkbox"/> Compost    |
| <input type="checkbox"/> Peat Moss                  | <input type="checkbox"/> Bucket         | <input type="checkbox"/> Plants     |
| <input type="checkbox"/> Wheelbarrow or Garden Cart |   |                                     |

***Read This Entire How-To Booklet For Specific Tools and in The Basics Listed Above***

Roses are without a doubt the best-known and most popular of garden plants. Gardeners and flower lovers are attracted by the plant's extraordinary history, dating back centuries before. Many more are simply smitten by the beauty and fragrance of the flowers. Despite these enticements, beginning gardeners are often hesitant to try them because they have a reputation as difficult plants. If you've been put off by this reputation, you'll find roses well within your reach.

In this How-To Booklet, we'll suggest ways to use these lovely plants in your garden landscape and outline how to get started growing them.



### ROSES IN THE LANDSCAPE

Roses are frequently grown as specimen plants, on their own or with other plants for their beautiful flowers. But roses can serve a variety of landscaping purposes. They often have handsome foliage as well. Miniatures and smaller bush roses serve well in garden beds. Larger bushes and climbers can form hedges and screens for privacy or view. A row of dense 6-ft.-tall plants makes an effective backdrop to a garden. Over an entry trellis or up the side of a house, a climber makes a striking focal point. Old-garden roses fit right into "natural" landscapes.

In addition to landscape use, consider cultural conditions when determining where to plant. Roses are sun lovers, doing best with at least 6 hours of sun a day. In hot climates, a place that provides some shady relief from midday heat is beneficial. Protect roses from

damage delicate blossoms and can quickly dry out a plant. Remember to keep the plant's mature size in mind. Allowing room between it and other plants for air to circulate freely will help prevent disease.

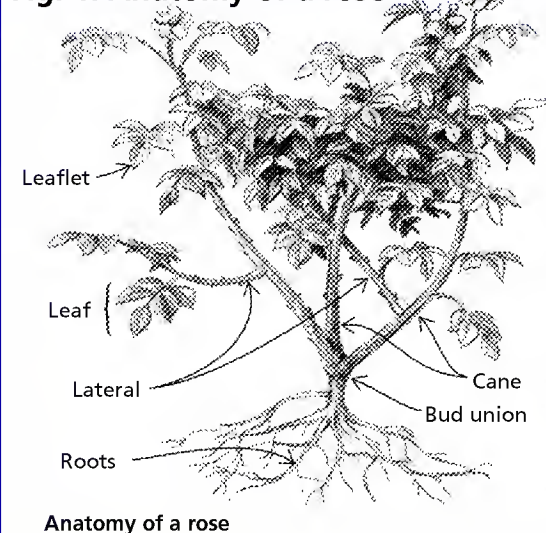
**Choosing Roses.** Roses, perhaps more than any plant, entice us with their flowers. Color, form, fragrance, bloom time, and duration all weigh in our choices. But don't forget about practical matters. In cold-winter areas, roses must be able to withstand the rigors of seasonal change. The most common measure of this ability is the minimum temperature a plant can survive. Horticulturists have divided the country into 11 "hardiness zones," based on average minimum temperatures. The hardiness zone rating is frequently noted on plant labels and in catalogs.

A rose chosen with local conditions in mind, whether they be drought, high humidity, or poor soil, is more likely to succeed and to require less regular care. In many towns and cities, rose lovers get together in formal or informal groups; these people are usually eager to provide advice to novices. Knowledgeable staff at a nursery or garden center can also offer valuable help.

Roses are sold "bare-root" or in containers. Bare-root plants are dormant, with leafless branches and roots bare of any soil. All mail-order roses and many sold at nurseries are bare-root. Bare-root plants are generally sold or shipped at times appropriate for planting (spring or fall). If you can't plant a bare-root plant immediately, keep it cool (below 50°F) so it won't break dormancy, and keep it moist so it won't die.

Container-grown plants are typically more expensive than bare-root and offer a more limited selection of varieties. Look for healthy top growth; roots growing on top of or out of the bottom of a container are signs that the plant has been too long in its pot. In general, you can plant container-grown roses from spring to midsummer, or in the fall in warm-winter climates.

**Fig. 1: Anatomy of a rose**



## SOIL PREPARATION

Roses will grow in many types of soil, provided it is well drained but not dry. They do best in soil containing lots of organic matter, which, in addition to supplying nutrients and a texture easy for roots to penetrate, helps soil retain water without being soggy—roots that are too wet are as bad for roses as those that are too dry.

Before you buy a truckload of amendments, have your soil tested. Your County Extension Agent can provide information about state or private labs and procedures. Tests are cheap and, if you indicate you're going to grow roses, they can tell you very specifically what you should add to provide necessary nutrients and to adjust soil pH (roses prefer a slightly acid soil).

If your soil is generally good, any organic matter you can add will make it better for roses. Rosarians (as rose experts are called) suggest mixing good garden loam with up to an equal amount of organic material, such as compost, manure, or peat moss,

and about 10% coarse sand to improve drainage. Add superphosphate at a rate of 3 to 4 lb. per 100 sq. ft. to stimulate root growth. Work amendments in to a depth of 12 to 15 in. Poor soil can be improved with great quantities of amendments, or you can build raised beds 16 to 20 in. high on top of it, importing loam and organic amendments.

To prepare a planting hole for an individual rose, as opposed to a bed full of them, dig a generous hole, 18 in. wide and deep, and amend the excavated soil in the proportions mentioned above. There is a danger in amending small quantities of soil—the plant may not grow out into the surrounding soil, particularly if the native soil is poor. Confer with local experts to see what roses are known to do well in native soil—you might find more satisfaction growing these.

Good drainage is essential for roses. To check your soil, dig a hole 1 ft. deep and fill it with water. If the water hasn't drained completely in an hour, drainage needs improvement. If just a little water is left, adding organic matter may correct the problem. If a lot remains, you may need to install drainpipe to clear water from the root zone.

## PLANTING

Roses are easy to plant. The only complication is determining where to position the bud union on a grafted rose. (Many popular roses are grafted onto a rootstock more robust than their own.) Experts disagree on the subject. Some recommend placing the bud union 2 in. below the soil line in areas where winter temperatures fall below -10°F; at the soil level where winter lows are between -10° and 10°F; and 2 in. above soil level where lows are above 10°F. Others plant the bud union even with the soil surface in all climates. Confer with local rosarians or nursery staff to see what seems to work best in your area. Plants grown on their own roots should be planted at the same height they grew in the field—usually indicated by a ring of discoloration at the base of the plant.

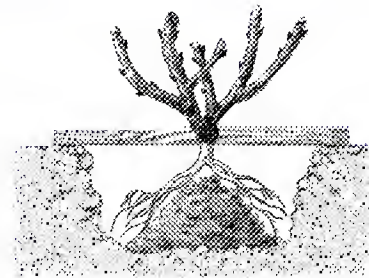
## PLANTING BARE-ROOT ROSES

- 1 Soak the roots for a few hours (but not much longer), then trim any that are damaged.
- 2 Excavate a generous planting hole, even in a prepared bed. Mound soil in the bottom to place the bud union at the desired height.
- 3 Spread the roots over the soil mound, trimming those that are too long to fit the hole. Work additional soil around the roots, eliminating air pockets, until the hole is half full.
- 4 Drench the soil and roots, let drain and add soil to grade, then water again.
- 5 Mound 8 to 12 inches of soil around the canes to protect them from wind and sun. When new shoots are several inches long, gradually wash the mound away until it is level with the surrounding soil.
- 6 Add a generous mulch of chipped bark, rough compost, or gravel to help retard evaporation. A soil moat, built a few inches high around the perimeter of the planting hole, will also help retain water.

## PLANTING CONTAINER-GROWN ROSES

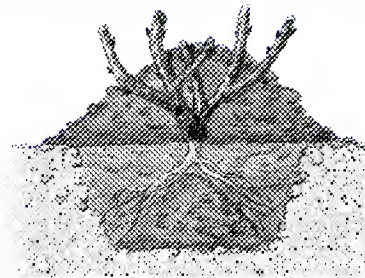
- 1 Before planting, soak the soil in the container. When the soil is moist but not soggy, slide off or cut off the container. Disturb the root ball as little as possible, but if a great many roots are visible on the surface of the ball, gently untangle them.
- 2 Carefully place the plant in the hole, spreading disentangled roots so they don't encircle the ball. Build up soil under the ball to bring the bud union to the correct position.
- 3 Proceed as outlined above for bare-root plants. Container plants are likely to have broken dormancy, so don't mound soil over the aboveground portion.

**Fig. 2: Planting a rose**



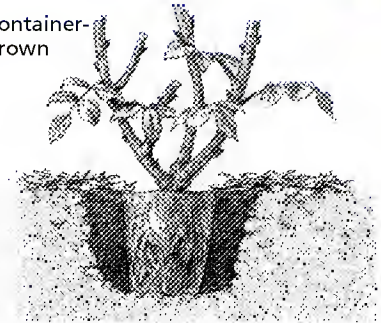
**Spread the roots** over a mound of soil. (The stick helps position the bud union.) Backfill halfway, then fill the hole with water and allow to drain.

**Bare-root**



**Work in soil to ground level;** tamp it firmly. Cover the canes with soil to a height of 8 to 12 in.

**Container-grown**



**Carefully remove the container.** Gently tease apart tangled or encircled roots. Set the bud union at the proper level. Work soil around the roots, firming it in place. Water and mulch.

## CARE AND FEEDING

Roses are hungry plants. They need constant moisture, though not soggy soil, and plenty of nourishment. How much and how often you need to water and feed plants depends on your soil and climate, the size of the plant, and the time of year. Be vigilant, checking your roses regularly for signs of water and nutrient deficiency.

When you water, water deeply, wetting the entire root zone to a depth of 16 to 18 inch. To find out how much water this would require for your soil, water in your preferred manner (bucket, hose, drip irrigation) until you think you've provided enough. Then dig down to see how far it has actually penetrated; water more if necessary. A hands-on method is also the best way to judge when you need to water. Dig down about 3 in. near the plant; if the soil at that depth is wet, wait; if dry, add the amount of water you determined above.

You can also fertilize according to monitored signs, but many gardeners adhere to a schedule. You may choose an ordinary granular or soluble fertilizer or one specially formulated for roses. Either way, follow recommended dosages on the label—too much fertilizer can cause problems.

Species roses, old roses, and climbers can do with a

single application of a complete fertilizer in early spring when buds are about to burst. In rich, organic soil, many thrive with no additional fertilizer. Repeat bloomers can use additional fertilizer after the first bloom is spent.

Modern roses need periodic feeding during the growing season. Fertilize new roses about a month after planting. Start feeding established plants after pruning, when new foliage begins to appear, then every 6 to 8 weeks or every 3 to 5 weeks, depending on your preference and what seems to work best for your plants.

Cold-winter gardeners should stop applying fertilizers containing nitrogen about 6 weeks before first frost; nitrogen encourages growth of tender shoots, which cold could damage. You can continue with phosphorus and potassium to strengthen roots and shoots for winter.

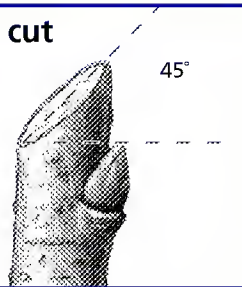
## PRUNING ROSES

Few aspects of rose growing are more daunting to novices than pruning. There are a great many different kinds of roses, and experts may prune each one slightly differently (and disagree with each other about the proper method). The best way to learn to prune is to watch an experienced rosarian prune plants similar to yours. In the



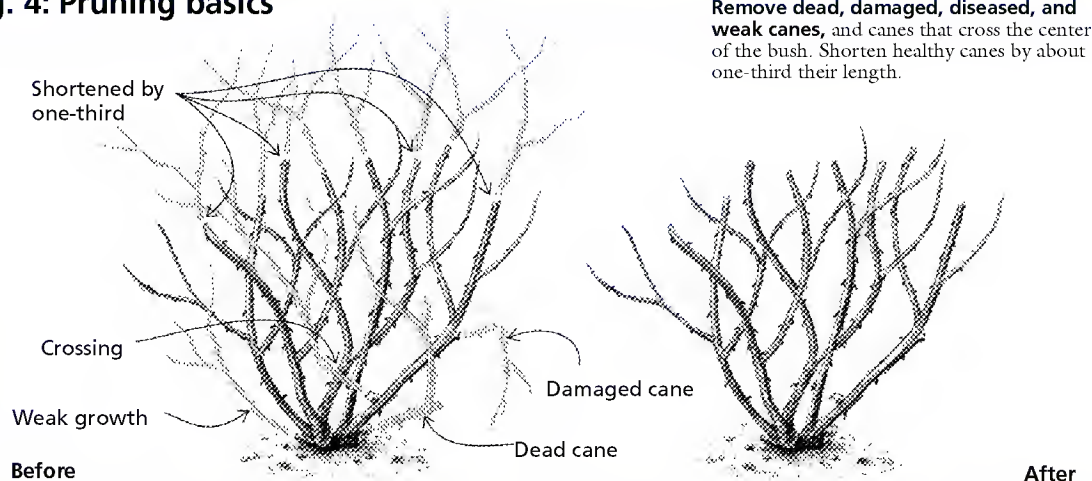
**Fig. 3: Making a correct cut**

Cut **above** an outward-facing bud. Angle the cut about 45°, so the lower point is roughly even with the top of the bud.



limited space available here, we'll outline the basics of rose pruning, which should get you off to a sound start.

- 🏠 You can do most pruning with a good pair of bypass pruning shears. These work like scissors; anvil shears can crush the canes. Heavy loppers or a small pruning saw is useful for older bushes with thick, woody growth.
- 🏠 In general, pruning is done to remove dead or unhealthy canes, to promote new growth, and to create a pleasing, healthy shape. Light to moderate pruning can produce good-looking garden plants and ample flowers.
- 🏠 Remove dead, diseased, or damaged wood and weak, spindly canes any time you see them. When removing diseased canes, sterilize the shears by dipping them in alcohol between each cut.
- 🏠 Damage may extend into wood that looks healthy on the outside; keep cutting until the pith at the center of the cane is whiteto light green.
- 🏠 Annual pruning is best done toward the end of the dormant season, when the growth buds are beginning to swell. Note that some once-blooming roses produce flowers on the previous year's growth—prune these after they bloom.
- 🏠 Remove canes that cross the center of the bush to help open the bush to air movement and sun.
- 🏠 Place your cuts at an outward-facing bud, to promote growth away from the center of the plant. (**Fig. 3**)

**Fig. 4: Pruning basics**

- 🏠 Many species and old-garden roses may do fine with no more pruning than the above. For hybrid teas, grandifloras, and floribundas, remove about one-third the length of new growth.
- 🏠 When cutting flowers for display, sever the stem just above the first leaf with five leaflets.
- 🏠 Climbers have special training as well as pruning requirements that we can't cover here. Consult a local rosarian for advice.

## PEST AND DISEASE CONTROL

Modern roses are almost as attractive to pests and diseases as they are to people; therein lies much of their reputation as difficult plants. But unless you're interested in producing prize-winning blossoms, roses need not require a great deal of fussing. Some species and old-garden roses seldom require intervention—all the more reason to seek out those that do well in your area.

Healthy, well-watered, well-fed plants are far less likely to sustain threatening damage from pests and diseases than are unhealthy plants. Good hygiene also discourages many problems. Here are some tips:

- 🏠 Water in the morning so leaves and canes dry during the day; this helps prevent fungal diseases.
- 🏠 Remove diseased or damaged leaves and canes as soon as you see them.
- 🏠 Clean up for winter by stripping leaves off the plant and removing debris from underneath it.
- 🏠 After pruning and before new growth emerges, apply a dormant spray (lime-sulfur) to kill overwintered insect eggs and disease organisms.

A variety of insects cause problems for roses. Some, such as aphids and mites, can be controlled simply by washing them off leaf surfaces. Others can be hand picked, but some require an insecticide. It can be difficult to identify critters—the bug you find at the scene of the damage may not be the one that caused it. And choosing the right control—organic, chemical, or biological—is confusing. Your best bet is to consult knowledgeable rosarians about specific problems.

Rust in the West and Southwest and black spot elsewhere join powdery mildew as the biggest disease problems for roses. Good hygiene and aeration help prevent all three; chemical controls can fight outbreaks. Again, advice from experts on the spot is most helpful.